

BIOLOGICAL EVALUATION  
MOUNTAIN PINE BEETLE, CHALLIS N.F.  
(WILDHORSE CAMPGROUND)

BOISE ZONE, R4, 1974

On September 17 a reconnaissance was made of the lodgepole pine stand in the vicinity of the Wildhorse Campground on the Challis National Forest by Galen Trostle and Arland Valcarce, Boise Insect and Disease Control Group, State and Private Forestry. The purpose of this survey was to determine the current status of the mountain pine beetle infestation within the stand.

In the spring of 1971 a suppression effort was made to reduce the population level of the mountain pine beetle within this stand of lodgepole pine. In this attempt 74-man days were expended on 57 acres to locate, fell, buck, pile, and burn 425 infested trees. A fall survey of red top trees indicated four trees had been missed.<sup>1/</sup>

This infestation existed in a relatively isolated stand of lodgepole pine in the head of Wildhorse drainage, a tributary of the Big Lost River. Because of its isolation, it was decided to use the area as a demonstration or study area to determine what would happen to the beetle population in the area after one year's suppression project. The current survey was made to evaluate the level of damage by the mountain pine beetle four flight years after suppression.

This reconnaissance covered the same area as did the suppression project. An attempt was made to locate all trees which currently contain mountain pine beetle brood as well as a count of trees killed last year. Since the area was not subdivided into lanes to assure 100 percent coverage, there is a chance that some infested trees were not located, but it was felt that a sufficient percentage were located to determine the level of damage. A count of red top trees that appeared to have been killed in 1973 was kept to determine whether the infestation had increased or decreased in the past two years. It soon became evident that some of these red top trees have been cut for firewood. But because of the difficulty in determining the year of attack from stump examination, no attempt was made to count these cut trees.

<sup>1/</sup> Biological Evaluation of Forest Insect Conditions on the Challis N.F. During 1971, J.A.E. Knopf, Branch of Forest Insect and Disease Protection Control.

A total of 34 trees were found to have been attacked in each of the two years. These trees can be best identified by their locations. Within the area encircled by the campground road there are 6 1974 attacked trees and 10 attacked in 1973. East of the road and south of the campground fence, 14 trees were found with current attacks and 10 1973 red tops were seen. Therefore, the total area south of the campground fence contains a total of 20 trees killed each year.

It was obvious from stumps and slash that some of the 1973 red top trees had been removed so that one could be assured that a reduction in intensity had occurred within the campground area. Attacks were not strong in most of the trees that were checked, and only one or two trees were over 10 inches DBH. There were other signs, such as Ips fill-in attacks and low attack height, that indicated the beetles in this area were not particularly aggressive.

At the north edge of the forest type, just south of the bridge across Wildhorse Creek, there was a single group of six large diameter trees on the edge of the creek which had been attacked and killed in 1973. Adjacent to these six, there are at least eight trees that have been attacked this year. A short distance away across the road there are five trees which were killed in 1973, which are still standing, and evidence that several have been cut. No current attacks could be found nearby.

The current attacks in large diameter trees near the stream are aggressive and could be of some concern except that the number of trees in this area is limited.

Only three 1973 kills and six 1974 attacked trees were found in the major portion of the area between the north edge of the forest type and the campground fence. Most of these were singles, except for a group of four small diameter trees on one of the upper benches.

A rough diagrammatic map is included to assist any one who might be interested in relocation of any of these trees.

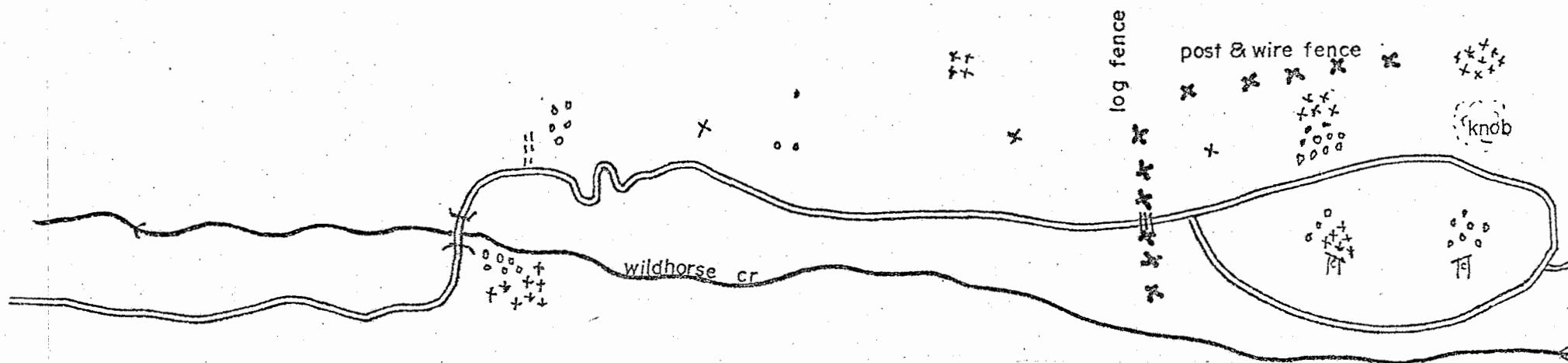
It would be beneficial to the stand if the trees which currently contain brood could be removed from the area before the young mature and fly in the late June of 1975. If an opportunity presents itself to get these trees cut and removed for firewood before July 1, 1975, losses from mountain pine beetles could probably summarily be reduced.

The success of the 1971 suppression work is verified by the present status of this bark beetle. It is obvious from the number of cut stumps, that the lodgepole pine in this stand has reached an age or condition that makes it vulnerable to insect attack. At the 1971 rate of loss of 400 to 500 trees per year, the stand would deteriorate at a rate which might not be acceptable to the campground user and probably at a rate beyond the capacity of firewood cutters to utilize.

At the current loss of 30 or so trees per year, the stand deterioration is not so severe as to be serious, and most trees will be utilized by campers or local firewood cutters. Such losses will probably be replaced with current growth of lodgepole or other species.

If trees containing brood are removed from the stand, further reduction of losses may occur; but in the long run, the loss of 30 small trees per year on 60 acres is not objectionable.

DIAGRAMMATIC MAP WILDHORSE CAMPGROUND,  
CHALLIS NATIONAL FOREST



Lodgepole Pine Killed by  
the Mountain Pine Beetle.

- x - 1974 Attacks
- o - 1973 Dead Trees

